

B' --The nucleic acid and amino acid sequences and antibodies thereto of the invention can be used for the detection and quantitation of mRNA for human Notch and Delta and adhesive molecules, to study expression thereof, to produce human Notch and Delta and adhesive sequences, in the study and manipulation of differentiation processes.--

After page 88, replace pages 89-120 of the Sequence Listing with pages 89-145 of the amended Sequence Listing submitted herewith.

IN THE CLAIMS

Please amend the pagination of the claims as follows: Renumber pages 121 through 134 as pages 146 to 159, respectively.

Please add the following claims:

Sub D3  
B2 90 (new). A method for the manipulation of cell differentiation comprising contacting a cell with an amount of a molecule which promotes or antagonizes Notch function, effective to manipulate the differentiation of the contacted cell.

91 (new). The method according to claim 90 wherein the molecule antagonizes Notch function.

92 (new). The method according to claim 90 wherein the molecule promotes Notch function.

93 (new). The method according to claim 91 wherein the molecule is a protein consisting of at least the EGF-like repeats 11 and 12 of a Notch protein.

94 (new). The method according to claim 90 wherein the molecule is an antibody to a toporythmic protein or a portion of the antibody containing the binding domain thereof.

95 (new). The method according to claim 94 wherein the toporythmic protein is Delta, Serrate or Notch.

B2 96 (new). The method according to claim 94 wherein the molecule is an antibody to a Notch protein or a portion of the antibody containing the binding domain thereof.

97 (new). The method according to claim 94 wherein the antibody binds to a fragment of a toporythmic protein, the fragment being characterized by the ability to bind to a Notch protein.

<sup>2</sup>  
98 (new). The method according to claim <sup>1</sup>97 wherein the molecule is a protein consisting of at least a fragment of a toporythmic protein, the fragment being characterized by the ability to bind to a Notch protein.

99 (new). The method according to claim 90 wherein the molecule is a protein consisting of at least the extracellular domain of a Notch protein or a portion thereof capable of binding to a Notch ligand.

100 (new). The method according to claim 91 wherein the molecule is a protein consisting of at least the EGF homologous repeats of a Notch protein.

<sup>3</sup>  
~~101~~ (new). The method according to claim <sup>1</sup>~~90~~ wherein the molecule is a protein consisting of at least a fragment of a Notch protein, the fragment being characterized by the ability to bind to a toporythmic protein.

<sup>B2</sup> 102 (new). The method according to claim 91 wherein the molecule is an oligonucleotide which (a) consists of at least six nucleotides; (b) ~~consists~~ of at least a sequence complementary to at least a portion of a RNA transcript of a Notch gene; and (c) is hybridizable to the RNA transcript.

<sup>Sub</sup>  
<sup>D4</sup> 103 (new). The method according to claim 92 wherein the molecule is a Delta protein.

<sup>5</sup>  
~~104~~ (new). The method according to claim <sup>1</sup>~~90~~ wherein the molecule is a Notch protein.

<sup>Sub</sup>  
<sup>D5-</sup> 105 (new). The method according to claim 92 wherein the molecule is a Serrate protein.

<sup>Sub</sup>  
<sup>D6</sup> 106 (new). The method according to claim 90 wherein the molecule is encoded by a gene which is a member of the "Notch-group" of genes.

107 (new). The method according to claim 90 wherein the molecule interferes with Notch intracellular function.

108 (new). The method according to claim 90 wherein the molecule is an analog or competitive inhibitor of a Notch intracellular signal transducing region.

109 (new). A method for the manipulation of cell differentiation comprising contacting a cell with an amount of a toporythmic protein effective to manipulate the differentiation of the contacted cell.

<sup>9</sup>  
~~110~~ (new). The method according to claim <sup>8</sup>~~109~~ wherein the toporythmic protein is a Delta protein.

<sup>10</sup>  
~~111~~ (new). The method according to claim <sup>8</sup>~~109~~ wherein the toporythmic protein is a Serrate protein.

<sup>11</sup>  
~~112~~ (new). The method according to claim <sup>8</sup>~~109~~ wherein the toporythmic protein is a Notch protein.

113 (new). A method for the manipulation of cell differentiation comprising contacting a cell with an amount of a fragment or derivative of a first toporythmic protein effective to manipulate the differentiation of the contacted cell, wherein the fragment or derivative is characterized by the ability to bind a second toporythmic protein.

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114 (new). The method according to claim 113 wherein the second toporythmic protein is a Notch protein.

115 (new). The method according to claim 113 wherein the second toporythmic protein is a Delta protein.

116 (new). The method according to claim 113 wherein the second toporythmic protein is a Serrate protein.

B2 117 (new). The method according to claim 114 wherein the first toporythmic protein is a Notch protein.

118 (new). The method according to claim 115 wherein the first toporythmic protein is a Delta protein.

119 (new). The method according to claim 116 wherein the first toporythmic protein is a Serrate protein.

120 (new). A method for the manipulation of cell differentiation comprising contacting a cell with an amount of an antibody or fragment or derivative thereof which binds to a toporythmic protein effective to manipulate the differentiation of the contacted cell.

121 (new). The method according to claim 120 wherein the antibody or fragment or derivative thereof binds to a portion of a first toporythmic protein that binds to a second toporythmic protein.